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CLAIMS

1. An imidazotriazinone compound represented by the following formula (IA) or (IB):

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wherein

A is N or CR4;

B is N or CH;

 \mathbb{R}^1 is substituted or unsubstituted cycloalkyl group or tert-butyl group;

 R^2 is a hydrogen atom or C_1-C_6 alkyl group;

 R^3 is a hydrogen atom; nitro group; cyano group; a halogen atom; heteroaryl group; substituted or unsubstituted C_1 - C_6 alkyl group; substituted or unsubstituted C_2 - C_6 alkenyl group; saturated or unsaturated heterocycloalkyl group which is substituted or unsubstituted; a group: $-NR^5R^6$, $-C(O)R^7$, $-SO_2R^7$, $-OR^8$, $-NR^8COR^7$, $-NR^8SO_2R^7$;

 R^4 is a hydrogen atom or C_1-C_3 alkoxy group which is unsubstituted or substituted by one or more fluorine atom(s);

 R^5 and R^6 are, same or different from each other, a hydrogen atom; substituted or unsubstituted C_1 - C_6 alkyl group; substituted or unsubstitutedacyl group; or substituted or unsubstituted heterocycloalkyl group;

 R^7 is a hydrogen atom; substituted or unsubstituted C_1 - C_6 alkyl group; substituted or unsubstituted heterocycloalkyl group; OH; -OR 8 or -NR 5 R 6 ;

 R^8 is a hydrogen atom, substituted or unsubstituted C_1 - C_6 alkyl group; or substituted or unsubstituted heterocycloalkyl group; or pharmaceutically acceptable salts or solvates thereof.

- 2. The compound represented by the formula (IA) according to claim 1.
- 30 3. The compound represented by the formula (IB) according to

claim 1.

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- 4. The compound according to claim 1, 2 or 3, in which R1 is substituted or unsubstituted C_3-C_8 cycloalkyl group.
- 5. The compound according to claim 4, in which R^1 is selected from the group consisting of cyclopentyl, cyclohexyl and cycloheptyl.
 - 6. The compound according to any one of claims 1 to 5, in which A is CR^4 wherein R^4 is methoxy or ethoxy group.
 - 7. The compound according to any one of claims 1 to 6, in which B is CH.
- 10 8 The compound according to any one of claims 1 to 7, in which \mathbb{R}^2 is methyl group.
 - 9. The compound according to any one of claims 1 to 8, in which R^3 is a haydrogen atom; a halogen atom; saturated or unsaturated heterocycloalkyl group; group selected from the $-NR^5R^6$, $-C(O)R^7$, and $-SO_2R^7$, wherein R^7 is OH, $-OR^8$, $-NR^5R^6$ and substituted or unsubstituted heterocycloalkyl group.
 - 10. A pharmaceutical composition containing a compound according to any one of claims 1 to 9, or pharmaceutically acceptable salts or solvates thereof as active ingredient.
- 20 11. A PDE 7 inhibitor containing a compound according to any one of claims 1 to 9, or pharmaceutically acceptable salts or solvates thereof as active ingredient.